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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,945	08/10/2000	Setsuo Nakajima	SEL 203	5934

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EXAMINER

HU, SHOUXIANG

ART UNIT PAPER NUMBER

2811

DATE MAILED: 04/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/635,945

Applicant(s)

NAKAJIMA ET AL.

Examiner

Shouxiang Hu

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,4,5,7,8,10,11 and 13-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,6,9 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Claims 1, 2, 4, 5, 7, 8, 10, 11 and 13-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 3.

Specification

2. The disclosure is objected to because of the following informalities/defects:

The term of "film 114" in line 13 of page 17 should read as --film 115—(see Fig. 2B(II)).

Appropriate correction is required.

Claim Objections

3. Claim 3 is objected to because of the following informalities/defects:

The term of "insulating layer" in line 4 of claim 3 should read as --an insulating layer--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 6, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. ("Lee"; 6,008,065) in view of Kim (6,025,891).

Lee discloses a semiconductor device (Figs. 6 and 11), comprising: a substrate (20); a thin film transistor comprising a gate electrode (comprising a heat-resistant electrically conductive material, 24, Ti or Ta (see col. 5, lines 2-5), and a low-resistive electrically conductive material, 22, Al (see col. 4, lines 66-67)), an insulating layer (26), a channel forming region in an amorphous semiconductor layer (28), and doped source and drain regions (30); an inorganic interlayer insulating layer (34); a pixel electrode (36); and, an input terminal portion including a first layer (24 and 22 in the D section) comprising the same material as that of the gate electrode (24 and 22) and a second layer (36a) comprising the same material as that of the pixel electrode.

It is noted that the substrate (20) in Lee is transparent (see col. 4, line 58); and one of ordinary skill in the art would readily recognize that it normally implies that the substrate is formed of a glass which normally inherently has an insulating surface.

Although Lee does not expressly disclose that the input portion is electrically connected to a wiring of another substrate, one of ordinary skill in the art would readily recognize that the main purpose of forming an input terminal portion in the art is for

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facilitating the connection between an LCD's panel electrode with an output electrode of an external drive circuit through a wiring, as evidenced in Kim (see col. 1, lines 14-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the semiconductor device of Lee with the input terminal portion being connected to a wiring of another substrate, as taught in the prior art such as Kim, so that an LCD device with facilitated connection between the panel electrode and the external drive IC would be obtained.

Regarding claim 12, one of ordinary skill in the art would readily recognize that a LCD type semiconductor device can be desirably used in a device capable of functioning as a television set, as evidenced in the prior art such as Tsuji et al. (5,821,622; see col. 1, lines 13-22).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References C-G are cited as being related to the structure of a TFT LCD device.

7. Papers related to this application may be submitted to Technology center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the TC 2800 Fax center located in Crystal Plaza 4, room 4-C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15,

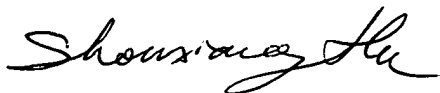
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1989). The Group 2811 Fax Center number is (703) 308-7722 or 308-7724. The Group 2811 Fax Center is to be used only for papers related to Group 2811 applications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shouxiang Hu** whose telephone number is **(703) 306-5729**. The examiner can normally be reached on Monday through Thursday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Tom Thomas**, can be reached on **(703) 308-2772**. The appropriate fax phone number for the organization where this application or proceeding is assigned is **(703) 308-7724**.

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center Receptionists** whose telephone number is **(703) 308-0956**.



Shouxiang Hu

March 22, 2002